UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/975,945 | 10/11/2001 | Charles Paclat | THEOR-205.1-US | 9612 |

24972 7590 04/20/2007
FULBRIGHT & JAWORSKI, LLP
666 FIFTH AVE
NEW YORK, NY 10103-3198

| EXAMINER | |
|---|---|
| KHATRI, ANIL | |
| **ART UNIT** | **PAPER NUMBER** |
| 2191 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 04/20/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/975,945 | PACLAT, CHARLES | |
| | Examiner | Art Unit | |
| | Anil Khatri | 2191 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 February 2006*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by *Yeluripati et al* USPN 7,086,065.

*Yeluripati et al teaches*

Claim 1

analyzing a business domain to determine functional requirements of business domain (figures 1 and 4, column 8, lines 31-38, n a first aspect, shown in FIG. 1(b), the client 110 accesses a functional bean 180 and executes the business logic via the EJBObject 181. The functional bean 180 in turn provides access to the database 130 as shown. In this scenario, a three-level interaction takes place: Client-->functional bean-->database view(s) or record(s) or any limited resource);

transforming functional requirements into an EJB component model (column 5, lines 48-53, Accordingly, in an embodiment, the disclosure is directed to a novel "functional" bean, which is devoted to modeling a business function. Clients do not need to know the particular primary key or identifier as in the case of an entity EJB; rather a client knows only a well-known Service Manager bean to obtain a handle to the correct type of functional bean. ; and

building an EJB component in accordance with EJB component model that encompass the business functionality of business domain (column 8, lines 50-60, Referring to FIG. 1(e), another scenario includes a client 110 accessing a session bean 150 via an EJBObject 151 to establish and manage a session with the client 110. The session bean 150 invokes or mediates access to a functional bean 180 (via an EJBObject 183), wherein the functional bean 180 implements the business logic functions. The functional bean 180 invokes or utilizes the services of an entity bean 160 (via an EJBObject 163) to perform functions such as database updates. In a subsequent session, a new session bean 150 may be present to invoke the functional bean 180, but transactional persistence is taken care of by the container 120. ).

*Yeluripati et al teaches*

Claim 2

modifying functional requirements by a user; and repeating the steps (b) and (c) to provide a parallel development process (column 6, lines 36-50, instructions to direct the computer processor to create an instance of a functional bean of the particular type requested;

instructions to direct the computer processor to obtain a handle to said instance of said functional bean; and instructions to direct the computer processor to transmit to the client said handle to said instance of said functional bean, wherein the computer processor, responsive to a second request from the client enables the client to execute code comprised in the functional bean to accomplish the particular business function. In further aspects, the code further comprises instructions to receive the first request and the second request from the client via a computer network; or instructions to create a number of instances of functional beans of the particular type, said number being dependent on availability of resources; or instructions that allow a functional bean to instantiate a second bean of a second type in order to execute the business logic contained in the second bean instance. In a yet another aspect, the code further comprises instructions that allow an instance of a session Enterprise JavaBean to invoke the business methods contained in the functional bean).

*Yeluripati et al teaches*

Claim 3

EJB components are extensible and configurable (column 11, lines 15-30, The functional bean 180 looks up a resource name using JNDI 310 to obtain an instance of an external resource such as a data source 130. This instance of the external resource interface 320 is used to access resources, which can be used by a functional bean 180 subsequently. If the functional bean 180 is configured to support bean-managed transactions, the functional bean 180 invokes a "begin" method 345 in the external resource interface 320 to transmit a message to the container 120 indicating that the functional bean 180 intends to begin a transaction that involves the external

resource interface 320. After the begin method executes, the functional bean 180 performs a method 347 such as UpdateOrderEntry. After control of execution returns from the method 347 call, the functional bean 180 may release any external resources that it has acquired by calling a "close" 355 method on the external resource interface 320 after appropriately committing/rolling back the transaction).

*Yeluripati et al teaches*

Claims 4 and 5

functional requirements include data and process model of business domain (column 13, line 25-37, Referring to FIG. 5, which shows an exemplary architecture of software 500 executing on the enterprise application server 100. The software architecture 500 comprises a plurality of layers of software, each layer including a separate subsystem, for example, a view layer 502 (which includes the presentation logic); an application-model layer 504 (which is the middleware layer incorporating the business functions); a domain layer 506 (comprising business data persistence); and a persistence layer 508 (which includes code to accomplish data persistence). The layers are shown horizontally and the subsystems 522, 524 and 526 are shown vertically. Each layer includes a set of classes such as Enterprise JavaBeans that share certain responsibilities, utilize the services provided by a layer below, and/or provide services to a layer above).

Yeluripati et al teaches

Claim 6

step of analyzing includes the step of generating a list of inputs, each input identifying a resource that relate to business domain (column 7, lines 20-27, incorporating certain functional

(i.e., functions as objects) programming methods in the Enterprise JavaBean (EJB) model to accomplish certain tasks that are not easily accomplished by the session or entity beans as they are currently defined. It has been discovered that certain tasks such as updating a customer account are more advantageously implemented using a functional approach, which enables a programmer to define the business logic in the form of a series of steps performed on a set of entities (or objects).

*Yeluripati et al teaches*

Claim 7

the step of generating eFunction matrix from list of inputs (column 8, lines 44-48, "Referring to FIG. 1(d), a functional bean 180 manages the connection as in FIG. 1(b), but instead of providing access to the database 130 as in FIG. 1(b), invokes an entity bean 160--via an EJBObject 162--with a primary key or other identifier to interface with the database 130).

*Yeluripati et al teaches*

Claim 8

step of transforming transforms functional requirements using an unified modeling language (UML) tool to generate EJB component model (column 5, lines 48-54, Accordingly, in an embodiment, the disclosure is directed to a novel "functional" bean, which is devoted to modeling a business function. Clients do not need to know the particular primary key or identifier as in the case of an entity EJB; rather a client knows only a well-known Service Manager bean to obtain a handle to the correct type of functional bean).

Regarding claim 9

Rejection of claim 1 is incorporated and further claim 9 recites limitations as in claim 1, therefore, claim 9 is rejected under same rationale.

*Yeluripati et al teaches*

Claim 10

step of building builds EJB component from at least one of the following class stereotypes: Belonging, Session, Entity, Configurable Entity, Business Policy and Workflow (column 6, lines 39-53, in further aspects, the code further comprises instructions to receive the first request and the second request from the client via a computer network; or instructions to create a number of instances of functional beans of the particular type, said number being dependent on availability of resources; or instructions that allow a functional bean to instantiate a second bean of a second type in order to execute the business logic contained in the second bean instance. In a yet another aspect, the code further comprises instructions that allow an instance of a session Enterprise JavaBean to invoke the business methods contained in the functional bean. In a yet further aspect, the functional bean can call any type of EJB beans, including entity beans).

Regarding claim 11

Rejection of claim 1 is incorporated and further claim 11 recites limitations as in claim 9, therefore, claim 11 is rejected under same rationale.

Regarding claim 12

Rejection of claim 1 is incorporated and further claim 12 recites limitations as in claim 1, therefore, claim 12 is rejected under same rationale.

*Yeluripati et al teaches*

Claim 13

building includes the step of generating relational mappings and deployment descriptors (column 11, lines 65-67, A functional bean deployer identifies the resources a functional bean may require during its lifetime and supplies mapping information needed to start-up to the external resources. The deployer binds the resource factory reference to a resource factory that exists in the target environment such as a database. A deployment descriptor is a device that allows the deployer to make this binding).

*Yeluripati et al teaches*

Claim 14

generating end-user documentation (column 4, lines 19-25, "a state full session bean...); developing unit tests to test EJB component; and generating a reference implementation of said EJ-B component (column 14, lines 40-49, The choice of using or not using other functional beans depends on a particular function to be implemented and the amount of code redundancy introduced by strictly adhering to developing functional beans that are independent of each other, i.e., loosely coupled. Functional beans that are independent of each other are attractive because they incorporate the virtues of loose coupling between subsystems; they make it easy for programmers to work independently and in parallel. This simplifies design, coding, unit and integration testing).

Regarding claim 15

Rejection of claim 1 is incorporated and further claim 15 recites limitations as in claims 1 and 14, therefore, claim 15 is rejected under same rationale.

*Yeluripati et al teaches*

Claim 16

step of packaging EJB component for deployment with container managed persistence. (column 5, lines 55-64, If a client needs to request a service offered by such a functional bean, it can be invoked directly. In one aspect, these functional beans are created and managed by a bean container such as an EJB container. The container controls access to these beans by way of a Service Manager. In one embodiment, the Service Manager itself is modeled as a functional bean, whose function is that of a manager of the other functional beans. Thus, in one embodiment, a three-tiered model that can accomplish the task contains the following structure).

*Yeluripati et al teaches*

Claims 17-18

EJB component is a Smart component having at least one of following Smart feature: SmartKey, SmartHandle and SmartValue (column 15, lines 4-14, Referring to FIG. 7, the steps included in a typical transaction are shown. As a first step, functional beans are created to model business service providers (step 700). A special functional bean called a Service Manager is also created. Then, suppose a client 110 requires a service provided by a particular type of functional bean, say, Trouble Ticket Entry. The client 110 first calls the Service Manager (step 702). Responsive

to this request, the Service Manager initializes a handle to an instance of the Trouble Ticket Entry functional bean (step 704). The Service Manager sends the handle to the client 110 (step 706).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anil Khatri whose telephone number is 571-272-3725. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

***

ANIL KHATRI
PRIMARY EXAMINER